

Amendments to the Drawings:

The attached sheet of drawings includes changes to figure 4. This sheet, which includes figure 4, replaces the original sheet which includes figure 4. In table 420₁ of figure 4, the value corresponding to (row 432, column 424₁), has been changed from 1800 to 2000, and the value corresponding to (row 432, column 425₁), has been changed from 324 to 500. These amendments have been made so that the values corresponding to pixel two, in table 420₁, are consistent with the decoding method illustrated by the table, where the values of the non-dominant colors of a pixel are unscaled. This decoding method is illustrated by pixel three in paragraph [0057] which states in relevant part, “Non-dominant R and B remain the same, scale dominant G Lm and Cm”, and hence the amendments do not constitute new matter.

Attachment: Replacement Sheet

Annotated Sheet

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Objection to the Drawings

In the Final Office Action mailed September 27, 2007, the Examiner has objected to the drawings. In particular, the Final Office Action indicates that "there is inconsistency concerning pixel 2 (table 420), which appears to be scaled in luminance and chrominance based on table 320, but nonetheless does not consist of data values for G, B nor proper scaling for luminance values that correspond to the value in table 350 utilizing the scaling of table 320." (Final Office Action, page 2)

In table 420₁ of figure 4, the value corresponding to (row 432, column 424₁), has been changed from 1800 to 2000, and the value corresponding to (row 432, column 425₁), has been changed from 324 to 500. These amendments have been made so that the values corresponding to pixel two, in table 420₁, are consistent with the decoding method illustrated by the table, where the values of the non-dominant colors of a pixel are unscaled. This decoding method is illustrated by pixel three in paragraph [0057] which states in relevant part, "Non-dominant R and B remain the same, scale dominant G Lm and Cm", and hence the amendments do not constitute new matter.

However, the luminance value for pixel two, of 540, is correct, contrary to the Final Office Action, which states "there is inconsistency concerning pixel 2 (table 420), which appears to be scaled in luminance and chrominance based on table 320, but nonetheless does not consist of ... proper scaling for luminance values that correspond to the value in table 350 utilizing the scaling of table 320." (Final Office Action, page 2) The luminance value of 540 is the result of multiplying the luminance value of the red segment reference pixel (= 900 which can be found in table 350₁, row 361, col. 356₁) with the scaled luminance value of pixel two of (= 6 which can be found in table 320₁, row 332, column 326₁) and dividing by 10. The procedure for scaling luminance values is described in paragraph [00057]. The applicant respectfully requests that the objection to the drawings be removed, in light of the amended drawing, and the foregoing explanation.

35 U.S.C. § 102 Rejection

The amended claims overcome the present rejection inasmuch as US Patent No. 6,597,815 to Satoh et al. (hereinafter "Satoh"), neither teaches nor suggests a method that includes:

decoding, on a pixel-by-pixel basis, audio/video data using a table of encoded pixel parameter values, wherein each pixel is represented by an entry in the table, and wherein the entry includes a dominant pixel color component (Claim 1)

or a computer readable medium storing a set of instructions that, when executed by a computer, cause the computer to execute a method that includes:

decoding, on a pixel-by-pixel basis, audio/video data using a table of encoded pixel parameter values, wherein each pixel is represented by an entry in the table, and wherein the entry includes a dominant pixel color component (Claim 20)

The Final Office Action suggests that "the entry in said claims may pertain to the entire quantization table of Fig. 7" (Final Office Action, page 3). If an "entry in said claims may pertain to the entire quantization table", then Satoh fails to teach "a table of encoded pixel parameter values, wherein each pixel is represented by an entry in the table" as required by Claims 1 and 20. An entry is required by the claims to be "an entry in the table," but Satoh does not teach the entire quantization table as an entry in a larger table; hence, Claims 1 and 20 are patentable over Satoh.

Suppose for the point of discussion that the "table of encoded pixel parameter values" as required by the present claims is taught by the quantization table (such as in figure 7) of Satoh, and the "entry in the table" as required by the present claims is taught by an entry of the quantization table, such as entries with a value of 16, 11, 12 in table (A) of the figure 7 of Satoh. Even in this case, Claims 1 and 20 are patentable over Satoh, as Satoh fails to teach "decoding, on a pixel-by-pixel basis, audio/video data using a table of encoded pixel parameter values, wherein each pixel is represented by an entry in the table, and wherein the entry includes a dominant pixel color component". Satoh simply does not teach that each entry of the table, such as entries with a value of 16, 11, 12 in table (A) of the figure 7 of Satoh, includes "a dominant pixel color component" as required by the present claims. Hence, once again, Claims 1 and 20 are patentable over Satoh.

Claim 19 is also patentable over Satoh, as Satoh neither suggests nor teaches a decoder that includes:

to generate, pixel by pixel and segment by segment, a frame of audio/video data based upon a table of encoded pixel parameter values, wherein each pixel is represented by a single color entry in the table, and to scale a representative set of segment reference pixel values according to the table of encoded pixel parameter values, wherein a segment is a fractional portion of the frame of audio/video data (Claim 19)

Similar to the discussion of Claims 1 and 20, a single color entry cannot be taught by an entire quantization table of Satoh, as Satoh does not teach that quantization tables are entries in a larger table. Now suppose for the point of discussion that the "table of encoded pixel parameter values" as required by the present claims is taught by the quantization table (such as in figure 7) of Satoh. Further, Satoh teaches that "... the block decoding section 410 inversely quantizes the compressed image data input from the separation section 400 by using the quantized data input from the separation section 400, returns the image data to 8x8-configuration frequency-space image data..." (Satoh, 10:51-55). Thus, each entry in the 8x8 quantization table (such as in figure 7) represents pixel color information in the frequency domain. By the definition of the inverse Discrete Cosine Transform (iDCT), all entries in the 8x8 quantization table together represent color information of a single pixel, since to recover a single pixel, the iDCT must be applied to the entire 8x8-configuration frequency-space image data. In Satoh, each pixel is represented by all color entries in the quantization table, and not a single color entry. Satoh does not teach that "each pixel is represented by a single color entry in the table", and thus, Claim 19 is patentable over Satoh.

Claims 2-18 depend from Claim 1. For the reasons stated above, independent Claim 1 is patentable over Satoh. Adding the teachings of Crawford (U.S. patent No. 5416614), Ladwig (U.S. patent No. 6247014), Koshiba (U.S. patent No. 6933970), Basso (U.S. patent No. 6751623), and Boice (U.S. patent No. 6999511) fail to cure the above stated deficiencies of Satoh, and thus Claims 2-18 should be patentable by virtue of their dependency from independent Claim 1.

For at least the foregoing reasons, the claims are patentable over the references cited in the Final Office Action. If there are any additional fees due in connection with this communication, including fees for any extensions of time, please charge Deposit Account No. 19-3140.

Respectfully submitted,
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